

REMARKS

The Examiner is thanked for the thorough examination of the present application. The FINAL Office Action, however, continued to reject claims 1, 4-6, and 10-14. Upon entry of the amendments in this response, claims 1, 4-6, and 10-14 remain pending. In particular, Applicant has amended claims 1 and 5 without waiver, disclaimer or prejudice to the subject matter embodied therein. Claims 1 and 5 are amended to further recite the limitation of “a pixel electrode disposed on a part of the drain and electrically connected to the drain through a via.” Support for these amendments can be found at various portions of the application. By way of example, Figs. 3A and 3B show the side 124 of drain D partially overlaps the pixel electrode 114 which is electrically connected to the drain D through a via. Accordingly, no new matter has been added to the application with these amendments. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Rejections under 35 U.S.C. 102

The Office Action rejected claims 1, 4-5, and 10-14 under 35 U.S.C 102(b) as allegedly anticipated by Ukita (US Pat. 6,310,668). Applicant respectfully request reconsideration of the rejections based on the claim amendments and the following additional comments.

With respect to Ukita, Ukita discloses several embodiments (mainly indicated as prior art) relevant to a LCD device with compensation structure. In one embodiment, the device includes a gate electrode 32 and a compensating gate electrode 61 which are so arranged as to extend in a direction perpendicular to a longitudinal direction of a gate bus wiring 33. A compensating source electrode 62 is disposed over both the source electrode 40 and the compensating gate electrode 61 in a partially overlapping relationship therewith. Additionally,

the protruded portion of the pixel electrode 42 has a left side and a right side. The left side of the protruded portion of the pixel electrode 42 overlaps the gate electrode 32 and the right side overlaps the compensating gate electrode 61 (See col. 4, lines 31-37, and Fig. 11). Thus, the Office Action indicates that the protruded portion of the pixel electrode 42 can function as a drain electrode recited in claims 1, 5, and 11 of the present application. In response to the assertion of the Office Action, Applicant notes that the drain electrode and the pixel electrode disclosed by Ukita should be formed by the same layer, rather than different layers.

Turning now to amended claims, claim 1 recites:

1. A liquid crystal display device with a capacitance-compensated structure, comprising:
a gate line;
a gate electrically connected to the gate line;
a compensation structure extending from the gate or the gate line;
a drain having a first side opposite to a second side, wherein the first side of the drain overlaps the gate and the second side of the drain overlaps the compensation structure; and
a pixel electrode disposed on a part of the drain and electrically connected to the drain through a via.

(*Emphasis Added*). Claim 1 patently defines over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

As set forth above, Applicant respectfully submits that Ukita does not teach or reasonably suggest at least the features/limitations that have been emphasized above in independent claim 1.

For example, Ukita does not teach or suggest that a pixel electrode is disposed on a part of the drain having a first side overlapping the gate and an opposing second side overlapping the compensation structure, and is electrically connected to the drain through a via. Accordingly, Applicant respectfully asserts that the rejection of claim 1 is deficient and that claim 1 is in condition for allowance. Further, since dependent claim 4 incorporates the limitations of claim 1, and is not otherwise rejected in the Office Action, Applicant respectfully asserts that claim 4 is

also in condition for allowance.

With respect to claim 5, that claim (as amended) recites:

5. A liquid crystal display device with a capacitance-compensated structure, having a gate line and a data line to turn a thin film transistor on or off, comprising:

a gate electrically connected to the gate line;

a drain having a first side opposite to a second side, wherein a first parasitic capacitor is formed between the first side of the drain and the gate and a second parasitic capacitor is formed between the second side of the drain and the gate, wherein the second parasitic capacitor comprises the second side of the drain and a compensation structure extending from the gate or the gate line; and

a pixel electrode disposed on a part of the drain and electrically connected to the drain through a via

(*Emphasis Added*). Claim 5 patently defines over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

The features emphasized above in connection with claim 5 loosely correspond to the features discussed above in connection with independent claim 1. Therefore, for similar reasons to those set forth in connection with claim 1, Applicant submits that claim 5 patently defines over the cited art. Further, since dependent claim 10 incorporates the limitations of claim 5, and is not otherwise rejected in the Office Action, Applicant respectfully asserts that claim 10 is also in condition for allowance.

With respect to claim 11, that claim (as amended) recites:

11. A liquid crystal display device with a capacitance-compensated structure, comprising:

a first process layer comprising a gate line, a gate, and a compensation structure, wherein the gate is electrically connected to the gate line and the compensation structure connects to the gate; and

a second process layer comprising a data line, a source, and a drain, wherein the source and the drain are formed corresponding to both sides of the gate, respectively, the source is electrically connected to the data line, the data line is substantially perpendicular to the gate line, the drain has a first side overlapping the gate and a second side overlapping the compensation structure, wherein the first side is opposite to the second side;

wherein there is an acceptable alignment shift range between the first process layer and the second process layer, the sum of the capacitance of a first parasitic capacitor between the first side of the drain and the gate and a second parasitic capacitor between the second side of the drain and the compensation structure maintain a substantially constant value within the acceptable alignment shift range.

(Emphasis Added). Claim 11 patently defines over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

The Office Action reads the pixel electrode 42 shown in Fig. 11 of Ukita as the drain in claim 11. Logically, the pixel electrode 42 and the drain should be formed by the same layer. However, in claim 11, the second process layer comprises a data line, a source, and a drain. That is, the data line, the source and the drain are formed by the same layer (i.e. the second process layer). The Applicant submits that the pixel electrode and the data line cannot be formed by the same layer because they are formed by materials with different properties. Accordingly, Applicant respectfully submits that the rejection of claim 11 is deficient and that claim 11 is in condition for allowance. Further, since dependent claims 12-14 incorporate the limitations of claim 11, Applicant respectfully assert that these claims also are in condition for allowance.

Rejections under 35 U.S.C. 103

The Office Action rejected claim 6 under 35 U.S.C 103(a) as allegedly unpatentable over Ukita (US Pat. 6,310,668) in view of Fujikawa (US Pat. 5,995,178). Applicant respectfully traverses the rejections. In particular, as set forth above, Applicant respectfully asserts that Ukita does not teach or reasonably suggest at least certain limitations that have been emphasized in the respective independent claims. Since Fujikawa also does not teach or reasonably suggest at least certain limitations of the independent claim 5, Applicant respectfully asserts that claim 6 is in condition for allowance.

CONCLUSION

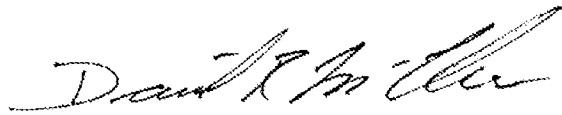
It is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

A credit card authorization is provided to cover the fee for the accompanying RCE application. No additional fee is believed to be due in connection with this amendment and response to Office Action. If, however, any additional fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully Submitted,

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